

**REMARKS**

Claims 1-4 were pending in the present application. New claims 5-8 are added herein. Thus claims 1-8 are now pending. Reconsideration of the present application in view of the above amendment and the following remarks is respectfully requested.

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

The applicants acknowledge and appreciate receiving a copy of the form PTO-1449 submitted with the Information Disclosure Statement that was filed on 1 October 2003, on which the Examiner has initialed all listed items.

The Examiner finds the title of the invention too general. Applicants have amended the title of the invention hereinabove to now read: TORQUE SENSOR FOR DETECTING A SHAFT TORQUE. If the Examiner still finds the title to be too general, applicants invite the Examiner to suggest a more descriptive title.

Claims 1-4 stand rejected under 35 USC §103(a) as being allegedly unpatentable over LeMarquand et al., U.S. Patent No. 5,705,756 (hereinafter "LeMarquand") in view of Hamoaka et al., U.S. Patent No. 6,483,296 (hereinafter "Hamoaka"). Claims 1 and 4 are amended herein to address the rejection.

In particular, a torque sensor in accordance with the invention, for example in accordance with an embodiment illustrated in Fig. 5, and as recited in claim 1 as amended, now include the non-magnetic spacer (14) having a single annular body, the one set of magnetic yokes (9) assembled to both end surfaces of the single annular body of the spacer (14), and the spacer having at least one positioning portion (14a) for positioning the one set of magnetic yokes (9).

The applied art combination, and LeMarquand in particular fails to teach or suggest the newly added features of claim 1. Applicants contend that the above described characteristic features of the claimed invention are not disclosed in any of the cited references.

The spacers 7, 8 and 9 described in LeMarquand do not amount to the claimed spacer since they are not described as having a single annular body and have no capability of positioning a set of magnetic yokes in the manner claimed. LeMarquand further fails to teach or suggest that a set of magnetic yokes is assembled *to both end surfaces of a single annular body of the spacer*. Figure 5 of applicants' drawings, shows that the claimed spacer (14) is placed between the set of yokes (9) such that yokes (9) are assembled to both end surfaces of a single annular body of the spacer. At best, the magnetic circuit elements 2, 3, and 4 in LeMarquand are fixed to a shaft 1, through pins and are not assembled to both end surfaces of a single annular body of a spacer. Applicants also importantly note that the spacers 7, 8, and 9 of LeMarquand further lack a positioning portion as claimed.

In stark contrast to the teachings of the applied art combination, the claimed spacer (14) has at least one positioning portion (14a) for positioning the set of yokes (9). When read in light of applicants' specification, for example at page 7 thereof, it is clear that the positioning portion (14a) has a specific function not taught in LeMarquand or in the applied art combination. For example, as shown in Fig. 5 of applicants' specification, magnetic yokes (9) are assembled to the spacer (14) *from both sides*, and thus claimed set of magnetic yokes are assembled to both end surfaces of the single annular body of the claimed spacer. In the claimed invention, the at least one positioning portion shown, for example, as projections (14a) of the spacer (14) are provided to set a position of the set of yokes. An angular offset in the circumferential direction is maintained between the coupled magnetic yokes (9), for example, by action of the positioning portion, so that claw poles (9a) are alternately meshed with each other. As noted above, each of

the spacers 7, 8, and 9 of LeMarquand are, at best, situated between a respective yoke portion and the shaft. The yoke portions of LeMarquand are not assembled to both end surfaces of a single annular body of spacers 7, 8, and 9 particularly since applicants contend that spacers 7, 8, and 9 of LeMarquand are not the claimed spacers.

Accordingly, a *prima facie* case of obviousness has not been properly established in that the applied art combination fails to teach or suggest all the claim features as required. It is respectfully requested that the rejection of claim 1 be reconsidered and withdrawn.

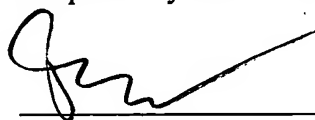
Claims 2-4 by depending from claim 1 are allowable for at least the reasons set forth with regard to claim 1. It is requested therefore that the rejection of claims 2-4 also be withdrawn.

New claims 5-8 are added herein to further define the invention of claim 1, and should be allowable by virtue of depending from claim 1. Favorable consideration is requested.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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